

## Product datasheet for **MR224951**

### Espn (NM\_207687) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Espn (NM_207687) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Espn
Synonyms:	je
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR224951 representing NM\_207687  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCCTGGAGCAGGCGCTGCAGGCGGCACGGCGGGGCGACCTGGACGTGCTGAGTCCCTGCACGCCG  
 CCGGCCTGCTGGGCCTTCTCTGCGGACTCGCTAGACGCCCTGCCGGTGCACTATGCGGCCGCTCAGG  
 CAAGCTGCACTGTCTGCGCTACTTGGTGGAGGAGTTGCCCTCCAGCCGTGTCCCGCGCGCAACGGC  
 GCCACACCAGCCATGACGCGCCGCCACAGGCTACCTCTTTGCTGCACTGGCTGCTCACACAGGGT  
 GCTGCAGGGTGCAGGAAAAAGATAACTCTGGTCCACAGTCTGCATCTGGCTGCCCGCTTTGGCCACC  
 GGATGTGGTGAAGTGGCTGCTGTACCAGGGCGGTGCAAATTCGGCCATCACACAGACACGGGCGCCCTG  
 CCTATCCACTACGCTGCCGCCAAAGGAGACCTCCCCTCGTGAAGCTTCTGGTCGGGCATTACCCTGAGG  
 GAGTGAATGCCAAACCAACAACGGTGCCACGCCCTGTACCTGGCGTCCAGGAGGGCCACCTGGAAGT  
 GACGAAGTACCTTGTGCAGGAGTGCAGTGCAGATCCGCACCTGCGCGCCAAGACGGCATGACACCCTA  
 CATGCCGACGACAGATGGGCCACAACCCAGTCTTGGTGTGGCTGGTGGCTTTGCAGACGTTAGCTTTT  
 CAGAGCAGGACCACGACGGCGCCACGGCCATGCACTTTGCTGCCAGTCCGGGCCACACCAAGTGCTCAG  
 CTGGCTCCTGCTGCACGGGGCAGAGATCTCGCAGGACCTGTGGGGCGGAACCCCGCTGCATGACGCTGCT  
 GAGAACGGGGAAGTGGAGTGTGCCAGATCCTCGCGGTGAACGGCGCTGGGCTGGACGTCGCGGACCACG  
 ATGGGTACACCGCTGCCGACCTGGCAGAGTTCAATGGCCACACCCACTGTTCCCGCTACCTACGTACGGT  
 GCAAACCTGAGCTTGGAAACCCGAGTCTTGTCCCGGATCAATCCATGGACCTGGAGGCAAAGCAGCTG  
 GACTCGGGTATGTCTCGCCAAACACCACCATGTCCGGTCCAGCCAATGACCTTTGACCTGGGCTCGCCTA  
 CTAGCAGTCTCCAATATGACTCCTGCTCCTCCAGTCACTCCAGCAGCAAGGGGCGAGCATCGAATCG  
 AGGGATTCCAGGTGCAAGAGCTGCAGACTTACAGAGCTACATGGACATGCTGAACCCAGAGAAGAGCTTG  
 CCTCGGGGCAAGCTAGGGAAGCCTTCCCGCCACCCACCTCCACCACCACCACCACCAAGCTTCCCGCCAC  
 CCCCACCACCCACAGGCACCCAGCCGCCCCACCTCCACCAGGCTACCCAGCTCCCAATCCCCCTGTGGG  
 ACTGCATCTGAATAACATTTACATGCAGACCAAGAACAAGCTTCGCCATGTGGAGGTGGACTCGCTCAAG  
 GAGCCCAAGGTGGAGCTGAACGATCAGTTTGCACAGCCGAGCTCGGGCGACGGCCACTCGGGGCTACACA  
 GGCAGGACTCCGGGCTGCTCAGGACGATTCCGAGCTGCTGCACAGGCAGGAGTCTCAGGCACAGCAC  
 CGGACTGCGCAGGACGACTCCGACCGCAAACAGCGCTCGTTAGTAAACAGCCAGCACGGGGACTAC  
 TACCGCCAGCTGGGCCGAGCCCGGGGAGCCGCTGGCCGCACGCCCGGGCATGGCCACAGCGAGGAGG  
 CGGCGCTGCTCCCGGGAACACGCTGCACAACGGCTGCTCAGCGGACTCCAAAGGCTCCAGGAGCTGCC  
 GCCGCCACCGCCCGCCGCGCTGCCGAGGCCCTGAGTTCCGCCGCGCCCGCCACCTCGCCCATC  
 GAGGGCGCGGGCGCAGCCTGCGGGCAGCGTCTGTTCCCTCGTCTTCTACTGGCAAAGTGAGAGTCTGAGAC  
 ACAGGAAGAGCACCAATCTTTCAACATGATGTCCCAACGGGTGATAACTCAGAGCTTCTGGCTGAGAT  
 AAAGGCGGGCAAGAGCCTGAAGCCGACACCGCAGAGCAAGGGGCTGACAACCGTGTCTCAGGCAGTGGG  
 CAGCCAGCCTCCAGCCTGAGTACCCGACGCTCTGGTGTACCTGCGCCATCTCGGACTCGGAGCCCCA  
 CCCCAGCCTCTGGTCTCAGCCACTGCTCAATGGCAGTGTGGTCCCGGACCACTGCCACCCCGGC  
 ACCTGGAGTCCATCTGGATGTGGAGGCCCTCATTCCACTCTTGATGAGCAGGGCCGGCCATCCCGGAG  
 TGGAAAGCCAGGTGATGGTCCGCAAGCTGCAGCAGAAGATGCAGGAGGAAGAGGAGCAGCGGAGGAAGG  
 AGGAAGAGGAGGAGGCCGGCTCGCCAGCCTGCCTGCCTGGAGACGAGACATTCTCGGAAGAAGCTGGA  
 GGAGGAGAGGGAGCAGAAGCGAAAAGAGGAGGAGCGGAAAAGCTGGAGGAAATACAGAGGGCGAAAAGAA  
 CAGTCGGAGAAGCTGCGGACACTAGGCTACGACGAAGCCAAGCTCGCGCCTGGCAGCGACAGGTATCT  
 TGAAGAAGGGGAGATCCCTAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR224951 representing NM\_207687  
 Red=Cloning site Green=Tags(s)

MALEQALQAARRGDLVLRSLHAAGLLGPSLRDSDLALPVHHAARSGKLHCLRYLVEEVALPAVSRARNG  
 ATPAHDAATGYLSCLQWLLTQGGCRVQEKDMSGATVHLAARFGHPDVVKWLLYQGGANSAITTDTGAL  
 PIHYAAAKGDLPSLKLLVGHYPEGVNAQTNNGATPLYLACQEGHLEVTKYLVQECSDPHLRAQDGMTPL  
 HAAAQMGHNPVLVWLVSFADVSFSEQDHDGATAMHFAASRGHTKVLSWLLLLHGAEISQDLWGGTPLHDA  
 ENGELECCQILAVNGAGLDVRDHDGYTAADLAEFNGHHCSTRYLRTVQTLSEHRVLSRDQSMLEAKQL  
 DSGMSSPNTTMSVQPMFTDLGSPTSTFSNYDSCSSSHSSSKGQRSNRGIPGARAADLQSYMDMLNPEKSL  
 PRGKLGKSPPPPPPPPPSPPPPPPTGTQPPPPPGYPAPNPPVGLHLNNIYMQTKNKL RHVEVDSLK  
 EPKVELNDQFAQPSSGDGHSGLHRQDSELLHRQELLRHSTGLRRQSDRKRQSF SKQPSTGDY  
 YRQLGRSPGEPLAARPGMAHSEE AALLPGNHVHNGCSADSKASRELPPPPPPPLPEALSSPPPAPPLPI  
 EGAGAACCQRSSSTGKVRVLRHRKSTKSFNMSPTGDNSELLAEIKAGKSLKPTPQSKGLTTVSGSG  
 QPASQPESQPLVSPAPSRTRSPTPPASGSQPLLNQSVVPAPPATPAPGVHLDVEAL IPTLDEQGRPIPE  
 WKRQVMVRKLLQKMQEEEEQRRKEEEEEEARLASLPAWRRDILRKKLEEREQKRKEEERQKLEEIQRAKE  
 QSEKLRTLGYDEAKLAPWQRQVILKKG EIPK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja3217\\_c07.zip](https://cdn.origene.com/chromatograms/ja3217_c07.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:

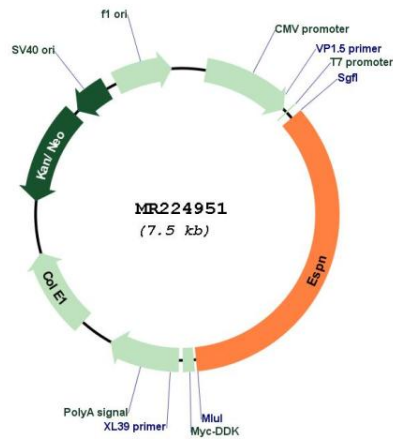


\* The last codon before the Stop codon of the ORF

<b>ACCN:</b>	NM_207687
<b>ORF Size:</b>	2616 bp
<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_207687.3</a>
<b>RefSeq Size:</b>	2861 bp
<b>RefSeq ORF:</b>	2616 bp
<b>Locus ID:</b>	56226
<b>UniProt ID:</b>	<a href="#">Q9ET47</a>
<b>Cytogenetics:</b>	4 82.9 cM
<b>MW:</b>	94.5 kDa

**Gene Summary:**

Multifunctional actin-bundling protein. Plays a major role in regulating the organization, dimension, dynamics and signaling capacities of the actin filament-rich microvilli in the mechanosensory and chemosensory cells (PubMed:14657236, PubMed:15190118). Required for the assembly and stabilization of the stereociliary parallel actin bundles. Plays a crucial role in the formation and maintenance of inner ear hair cell stereocilia (PubMed:21455486). Involved in the elongation of actin in stereocilia (PubMed:19287378, PubMed:22264607). In extrastriolar hair cells, required for targeting MYO3B to stereocilia tips, and for regulation of stereocilia diameter and staircase formation (PubMed:26926603).[UniProtKB/Swiss-Prot Function]

**Product images:**


Circular map for MR224951